
By Isabelle Tsakok

Abstract

Mauritius is a refutation of the proposition that food self-sufficiency at all costs is the way to achieve food security. Mauritius, a trade-dependent island economy, imports around three quarters of its food consumption. It is food self-sufficient in only local vegetables and fruits. Post-independence governments have succeeded in virtually eliminating extreme poverty. Mauritius has grown at an annual average of 5.3% or 4.4% in per-capita terms for decades, and has built a comprehensive social safety net and a public health system for universal healthcare. The food security of its people has thus vastly improved.

Mauritius was a monocrop, agrarian, low-income country at independence in 1968: GNP/cap was around $260. Today, it is classified as a high income country, with GNP/cap of $12,740 (2019). It has no precious minerals like South Africa, or rich natural resources like its nearest African neighbor, Madagascar. The 1960 report to the government by Meade and Tittmuss held out bleak prospects for Mauritius. According to James Meade (1961), the "outlook for peaceful development [of Mauritius] is weak".

But Mauritius has defied all expectations. Instead of precious minerals and natural resource abundance, Mauritius has drawn upon its political economy and institutional assets, in particular, macro and political stability and the rule of law, zero risk of expropriation, enforcement of private property rights, and respect for intellectual property. In addition, leadership shared the vision and commitment to building a prosperous and inclusive multi-racial, multi-ethnic, and multi-cultural society.

At independence, Mauritius was on the brink of economic collapse. Instead of divisive politics, the coalition government united behind fundamental reforms to transform Mauritius from a sugar-dominated, inward-looking economy to a diversified, trade-oriented economy. It skillfully used its trade preferences in sugar and textiles to fund its diversification. Its reforms improved equality and economic opportunity through broadly shared growth.

Today, Mauritius faces new challenges. It has to operate in more globalized and competitive world economy, without its trade preferences, with the dire predictions of climate change and with the onslaught of the COVID-19 pandemic. So far, its past achievements and current response have enabled it to effectively contain the damage from COVID-19.

**Introduction**

Mauritius became famous as one of Africa’s most unlikely success stories. At independence from the United Kingdom in 1968, its GNP/cap was $260. Today (2020), it is a high-income country, with GNP/cap of $12,740. Since independence, GDP growth has averaged 4.4% in per-capita terms (1969-2013). In the 1970s, its economy primarily depended on agriculture—contributing 22% of GDP—and mainly on sugar cane. From an inward-oriented, monocrop economy, it has become export-oriented, and has diversified into textiles, tourism, and financial and ICT (information and communication technology) services. The benefits of growth through diversification have been shared with its multi-racial, multi-ethnic, and multi-cultural population.

Success however is not forever. Mauritius faced new challenges about a decade ago: reduced trade preferences with lower prices of sugar and textiles, coupled with rising oil prices. The government undertook labor market reforms, opened more sectors to foreign investment, simplified and improved tax compliance, and reined in fiscal expenditures. The economy was resilient: it responded positively and was able to weather the global economic downturn of 2008-09 and the European recession of 2009.

In recent years however, growth has moderated, income inequality has grown, and economic vulnerability has increased. Productivity growth, which contributed 2.9 percentage points to annual growth between 1990 and 2013, has been steadily declining since 2005 (WBG, Jin 2015). In addition, Mauritius must urgently address the challenges of climate change, and of a more globalized and competitive world environment. Added to this, there has been the brutal onslaught of the COVID-19 pandemic since early 2020.

Given the overall agriculture and food-security situation and the public health infrastructure of Mauritius, what has been the short term impact of the COVID-19 pandemic, and the government’s response? Have its previous achievements helped its response? As for most countries, the strengths and weaknesses of Mauritius have been revealed by the pandemic stress.

**The Republic of Mauritius:**


On the brink of collapse in the early 1980s: The economy of Mauritius was reeling under repeated balance-of-

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4. The phase-out of the EU guaranteed sugar price took place from 2006-17. The Multi-Fiber Agreement for textiles ended in 2004. Mauritius had benefited from both trade agreements.

payments crises and macroeconomic mismanagement as it suffered from a 30% drop in sugar prices in 1976, and a second oil price shock in 1979. Overall growth was also mediocre—averaging 1.8% per year in the preceding years (1969-72) (World Bank, July 1989). When at the brink, its leaders developed a common vision of shared growth and chose reform. The leadership undertook substantive devaluations twice, implemented five successive stand-by arrangements with the International Monetary Fund (IMF), and two structural adjustment programs with the World Bank (IBRD) between 1980 and 1986. Mauritius re-oriented its economy to become export oriented and diversified. Key measures included the following: (i) elimination of all quantitative restrictions on imports; (ii) reform its tariff regime; (iii) set up an export processing zone (EPZ) and gave incentives for private investment in the EPZ; (iv) rehabilitated and restructured the sugar subsector; and (v) promoted tourism by addressing issues of air access and hotel capacity.

Shared vision essential for its success: Despite the island’s wide ethnic and cultural diversity, and despite sharp domestic political differences, Mauritius has been able to maintain a united front in negotiations affecting all parties—large and small producers and factories, in the major sugar sector. A key factor making this possible is “the shared vision of the public and private sector on a mode of development, where the public sector facilitates development and ensures that there is a fair distribution of wealth whilst the private sector is able to optimize its entrepreneurial and innovative skills”. (Sobhee and Rajpati, 2013). This shared vision strengthened by respect for the rule of law has made possible “the synergy between public and private sectors... in terms of using private businesses to pursue government strategies” (Sobhee and Rajpati, 2013). This vision of shared wealth was critical in the treatment of employees laid off when the industry was re-structured in 2001 and 2007 in response to reform of the EU Sugar Regime. The growth and transformation of Mauritius has generated broad-based socio-economic benefits including improved life expectancy at birth, reduced infant mortality, 100% access to healthcare services, safe potable water, and reduced illiteracy, including for females. Absolute poverty as measured by the $1 or $2/day poverty threshold has been eliminated. According to its own national poverty line, the poverty rate was 14.3% in 2011 (Sobhee and Rajpati, June 2013). By 2012, poverty had declined to 6.9% (WBG, Jn. 2015).

Mauritius drew upon multiple institutional assets to move forward: Mauritius was able to maintain macro and political stability through the transition period and beyond. Mauritius also stands out in terms of governance. It ranked first among 54 countries in terms of Overall Index of African Governance, as measured by the Ibrahim Index (2015)—at 79.9; and 79.5 (2018). Elections are promptly held every five years. The World Bank classified Mauritius in the percentile range of 75th-90th with respect to Political Stability. The Political Stability Index was of the order of +0.88 (within a range of -2.5 to +2.5). It also ranked highly in terms of the World Bank’s Rule of Law Index. Mauritius was considered to be in the 75-90 percentile range, indicating low risks of expropriation. As pointed out above, a critical institutional development that enabled Mauritius to maintain political stability and attract FDI was the shared vision that shaped public and private co-operation in the critical sugar sector. This ability to cooperate has pervaded the whole economy: it has underpinned the evolution of the Mauritian economy from a monocrop to a diversified and resilient economy.

From monocrop to a diversified economy in two to three decades: Mauritius is a tiny island (720 sq. miles), long known as the Star and Key of the Indian Ocean. It has distinguished itself as an agro-based (until the late 1980s) African country that has successfully transformed, despite the fact that it has no mineral wealth like South Africa or natural resource abundance like Madagascar, its closest African neighbor. For more than two decades, the contribution of the sugar subsector, long the backbone of the economy, dwindled from around 18% in the mid-1970s to 2.2% of GDP in 2013. The cane cluster played a pivotal role in the economy’s overall transformation through diversification within the cane cluster itself—conversion of bagasse into electricity and production of special sugars—and through its powerful linkage effects. According to the estimation of SAM (Social Accounting Matrix) impact multipliers, sugar production has the highest impact on the economy within the agricultural sector with a figure of 6.95, followed by Non-Sugar Crop Agriculture of the order of 5.93 (Sobhee and Rajpati, June 2013). During the transition period,

6. The Sobhee and Rajpati study (2013) used Input Output Accounts of Mauritius based on 2007 data, the latest available to the researchers. These estimates highlighted the important linkages that sugar and non-sugar agriculture sectors have with the rest of the economy, despite their reduced macro importance in a diversified economy. For more details consult the study.
agriculture’s contribution (which includes forestry and fishing) dwindled from around 23% in the late 1970s to 3.4% of GDP in 2013 (Govt. of Mauritius, Jan 2016). Agriculture sector employment shrank as agriculture was transformed: to around 8% of total (2012) (Sobhee and Rajpati, June 2013).

From sugar dominance rooted in history to its strategic diversification: For over three centuries, Mauritius was a sugarcane-dominated agrarian economy. Brought in by the Dutch in 1639, sugar cane was developed as a major commercial enterprise under French rule, in particular, under Governor Bertrand François Mahé de Labourdonais (1735-46)8. The volcanic soil and tropical climate are highly suitable for sugar cane cultivation, which in its heyday (late 1970s), occupied 45% of island area or 88% of the cultivated area. The French and the British imported slaves from Africa9 and indentured labor from Asia to work the sugar cane fields. The sugar cane sector contributed over 31% to total employment and 23% of GDP in 1976 (World Bank, July 1989). The sector has benefited from the research of the Mauritius Sugar Industry Research Institute (MSIRI), founded in 1953, to promote technical progress in the sugar industry through cane breeding and selection. It is known for high quality research and improving cane variety, as well as advising on the best agricultural practices to be adopted to obtain maximum yield per hectare. In fact, the MSIRI has become a center for training interested scholars from the Africa region. The sector also benefited from profitable market access through the preferential trade agreement with the European Economic Community (EEC). Under the Sugar Protocol of the Lomé Convention, Mauritius, which had a sugar quota of 507,000 metric tons (shipped weight basis), received a price that was on average three times the free market price (World Bank, 1989). In 2006, the European Community lowered its sugar price by 36% and abolished all sugar quotas as of October 1, 2017. Fortunately since these adverse trade terms were not news, the Mauritian sugar subsector had prepared itself by diversifying into bagasse, molasses, vinasse, and bioethanol. Bagasse contributes to around 17% of electricity consumed in Mauritius (Sobhee and Rajpati, June 2013). The surplus funds generated by the sugar subsector promoted diversification partly through investment in other sectors, including hotels and tourism (WBG, 2013)10, and partly through a sugar export tax.

Promoting self-sufficiency in foods that can be produced locally in the non-sugar subsector: Mauritius is a net food importer, importing around 77% of its total food requirements. Its main imports are wheat flour, rice, milk, meat, and temperate fruits—thus primarily basic staples. Other than sugar, its only other agri-food export (which is minor) is tea. The goal of its latest plan (2016-20) for its non-sugar agri-food sector is to increase its food self-sufficiency to the extent its limited land and water resources permit. Food crops cover an estimated 4,300 ha in a total production cropped area of 8,200 ha as a result of multiple cropping (Govt. of Mauritius, 2016). This subsector, dominated by smallholders, is considered non-corporate, in contrast to the sugar subsector which is considered corporate. An estimated 8,000 small farmers, each cultivating 0.25 ha, dominate the food crop subsector. The corporate or sugar subsector has also diversified into agri-food, including venison, poultry, animal feed, and milk products. Although there is irrigation, the food crop subsector is mainly rain-fed, producing a wide range of vegetables in which Mauritius is totally self-sufficient. Mauritius is also well known for its tropical fruits which include mangoes, litchis, etc.

7. First under the Dutch who left in 1710, Mauritius then became known as Isle de France from 1715 to 1814. It became a British colony under the Treaty of Paris (1814), shortly before the defeat of Napoléon in June 1815. Mauritius was however captured by the British on December 3, 1810. For empire builders, Mauritius was prized for its strategic location in the Indian Ocean and having the best harbor, Port Louis, which was developed as a major administrative center by the French and named in honor of the French King Louis XV.

8. It was under Labourdonnais (1699-1753) that the first sugar mills operated (1744).

9. Slavery was officially abolished in the British empire in 1807. It was not until 1835 that it was finally abolished in Mauritius as the French owners refused to comply earlier.

10. There are several estimates for its contribution to GDP: (i) World Bank Group. July 2013. The Way Forward for Indian Ocean Island Tourism Economies: Is there a Role for Regional Integration? Report # 8203. The estimate is 12.6% of GDP (2012); (ii) another estimate is 11% of GDP (2017); (iii) still another estimate is 24.3% of GDP (2018). All available estimates however show that its contribution is substantial. Mauritius has focused on the luxury tourism market. Many believe it is not just its natural beauty which is stunning, but the safety and security which it offers and which tourists value.

11. The mission of the MAIF is “...to enable and facilitate the advancement of agriculture and the agri-business sectors that use natural resources sustainably, contribute significantly to national food security and safety in line with the requirements for sustainable development, with support from national service providers and regional stakeholders” (Govt. of Mauritius, MAIF, Jan 2016).
pineapples, papayas, and of course, coconut (which is a fruit, a nut and a seed!). For non-sugar agriculture, the Ministry of Agro-industry and Food Security (MAIF) runs two institutions—the Food and Agriculture Research and Extension Institute (FAREI), and the Food and Agriculture Research Council (FARC), both effectively serving the farming community. One interesting subgroup is composed of Agricultural Youth Clubs with offices all over the island, including in state schools and colleges. Their objective is to professionalize farming techniques, including the business aspects, to the young and to women. Their assistance spans a wide range of crops and small livestock, e.g. from staples including pulses and root crops, to high value crops including strawberries and flowers, and poultry and egg production (Ori, 2013)12.

Fisheries important for poverty reduction have substantial development potential: In recent years, artisanal fisheries have contributed only 1-2% of GDP, but the contribution of the entire fisheries value chain, which includes processing and marketing, is about 4% of GDP. Artisanal fisheries, lagoon and off reef, are an important source of employment for unskilled labor and exclusively serve the domestic market. The scope for further exploiting tuna fisheries by these artisanal fishermen13 is limited, but there is much potential provided: (i) value chains can be developed by aggregating them; (ii) fishermen can be assisted with adequate cold storage; (iii) they have better access to credit; and (iv) the government develops food safety and quality practices, and rules to limit access to avoid overexploitation. Industrial fishing in Mauritian waters is mainly undertaken by foreign fleets.

Climate change poses an existential threat to Mauritius: Mauritius is among the top 10% of countries most exposed to natural disasters. The government and people of Mauritius are well aware that the island is very vulnerable to natural hazards and the adverse impacts of global warming. The government has a good warning and preparedness system already. It established a Disaster Risk Reduction and Management Centre in 2013. However, the challenges of climate change go beyond disaster management: they require mitigation and adaptation as well. To this end, the government is preparing a climate change adaptation strategy. It also set up a Climate Change Information Centre in July 2013. A few developments and predictions highlight the magnitude of the climate change challenge in the decades ahead (WBG, Jn. 2015):

- Mean annual temperature already increased by 0.6º C between 1960 and 2006. It is projected to increase by 1ºC to 2º C by the 2060s. The number of hot days and nights has increased.
- Rainfall in the last quarter of the year declined over the 1960-2006 period by 9% per decade. Extreme precipitation and flooding will likely increase. These could cause inundation and abandonment of cultivated areas, intensifying soil erosion, and the leaching of nutrients. Droughts are also increasing. The worst droughts occurred in 1999 and 2011, the former causing a 44% plunge in the contribution of sugar to the economy.
- Landslides have already increased and are expected to grow in severity. The number of dangerous sites for landslides rose from one in the 1990s to 22 by 2015.
- Deforestation is a concern, which would worsen the silting of rivers and lagoons, with detrimental effects on flora, fauna, and soil quality.
- Sea level rise would accelerate. Sea level increased by 3.8mm/yr between 1998 and 2007, and could rise by 0.13-0.55 mm/yr range by the 2090s, compared to 1980-99 sea levels.
- Beach erosion is a concern as there has already been a loss in beach area of around 18,500 m2 over the last two decades. The rise in sea temperatures is causing coral bleaching.
- Tropical cyclones have increased in frequency and strength. Cyclones, which hit Mauritius annually between Nov/Dec to April/May, have increased significantly over the last three decades. Research also shows that the number of intense cyclones (with wind gusts up to 299 km/hr) will increase at the expense of weaker cyclones.

These developments and projections threaten every aspect of Mauritian life given the tiny size of the island and its cultivated area, the density of its population—631 persons per sq. km (2019)—and the importance of its beaches for livelihood and recreation. In addition, higher temperature and recurrent floods are conducive to the propagation of vector-borne and infectious diseases.

12. Ori, S. Senior Extension Officer, AREU. 04/19/2013 “National Agricultural Youth Policy Dialogue in Mauritius” http://www.fanpan.org/documents/d03561/agriculture_youth_activities_at_the_mauritius_agricultura_research_and_extension_unit.pdf
13. There are about 3,200 registered artisanal fishermen, 44% of whom are in Rodrigues, a sister island to Mauritius.
The government recognizes that the challenge of climate change requires a holistic, nationwide response, as evidenced by its preparation of an adaptation strategy (For further information, see the website of the Ministry of Environment, Waste Management and Climate Change)14. Within the non-sugar agriculture sector, the MAIF has set up a Climate Change Working Group to develop an adaptation and mitigation strategy to help smallholders practice climate-smart agriculture, among other things.

Social protection important for poverty reduction, increased equality, and improved food security: The Mauritius social protection system covered about 46% of the population and it contributed 9.5% to the reduction in poverty in 2012. The Gini coefficient of income inequality would have been 0.41 instead of its actual level of 0.37 without the social protection system. One of its major programs is the Basic Retirement Pension, a universal non-contributory pension, available to anyone above the age of 60: an estimated 34% of the population. Government spends 20% of its expenditures or 5.5% of GDP on 39 programs including social assistance, pensions, and labor-market programs. Spread over multiple ministries, foundations, and special funds, the system suffers from lack of coordination, accountability, and transparency. While the system definitely helps, there is also much scope for improvement (WBG, Jn. 2015).

Universal access to healthcare services viewed as a human right in Mauritius: Mauritius has a public health system financed from general revenues, which provides services without user fees, premiums, or other prepayment schemes. “Government is committed to providing universal, accessible and quality health care services, free of any user cost with emphasis on customer satisfaction” (Government Program, 2015-2019)15. While everyone can access it, in reality it serves mainly the poorer population as half of total health expenditure is spent in the private sector on health insurance and out-of-pocket payments for care and treatment. Universal healthcare access has been a major contributor to good health indicators, which are comparable to other upper middle income countries in terms of life expectancy, infant and under 5 years of age mortality rates, immunization coverage (100 %), and low communicable diseases rates, e.g. the eradication of malaria, and an HIV infection prevalence rate of 0.97%. Public hospital services represent the largest item of public health expenditure, representing around 82% of the annual budget of the Ministry of Health and Quality of Life. What is concerning however, is the high rate of non-communicable diseases (NCD). For example, according to the 2009 NCD survey, one in every two Mauritians aged 25-74 has diabetes or pre-diabetes. Half the population is either overweight or obese, and the prevalence of hypertension is 38%. Health and socio-economics are inevitably tied as lower levels of education are associated with more poverty and higher incidence of NCD.

Government’s decisive response to the COVID-19 pandemic assault: The Mauritian government acted decisively. It started screening passengers at the airport on January 22, 2020, and separated passengers at risk starting from January 29. From February 28, Mauritian authorities quarantined visitors from countries with a high number of cases. The March 12 Independence Day celebrations were canceled in schools. The government undertook a systematic information campaign, informing the public of the latest COVID-19 statistics. The Ministry of Information and Communication Technology developed a mobile app called ‘beSafeMoris’ which gives official up-to-date information and useful tips and can be downloaded for free. The first three cases were detected on March 18; all the individuals had traveled abroad. When four more cases were detected the next day, the government imposed its first in a series of stringent measures, closing all schools, and allowing only essential services to operate16. When further cases were detected on March 24, a ‘sanitary curfew’ was imposed. Supermarkets, shops, and bakeries were not allowed to operate, effective immediately. The curfew terms were extended to April 15, while the rules for supermarkets were relaxed with very strict controls imposed as of April 2. The health services prioritized contact tracing and testing of anybody who had been quarantined and showed symptoms of the infection. All healthcare professionals who had cared for COVID-19 patients were

16. Services considered essential are: shops, banks, supermarkets, pharmacies, hospitals, police, and private clinics.
quarantined in hotels and youth centers. As of May 17, sanitary measures with respect to wearing masks, and other protective equipment, as well as social distancing were to be enforced on individuals and employers\textsuperscript{17}. For economic assistance, the government committed 12 billion rupees ($300 million) to support businesses and people (Jeeneea et al, May 2020)\textsuperscript{18}. How long this financial assistance will last depends on what happens to the spread of the infection. On April 24, the Mauritius Academy of Science and Technology (launched in 2007) issued an urgent call for coordinated national initiatives for strengthening food security during the post COVID-19 confinement period\textsuperscript{19}. By July 27, the number of infections totaled 364, with 322 recovered and 10 deaths\textsuperscript{20}, out of a total population of about 1.3 million. By October 07, 2020, confirmed infections totaled 395, and deaths 10.\textsuperscript{21} By September 2021, nearly 66 % of the population was fully vaccinated. (JHU)\textsuperscript{22} There has been not only swift government responsiveness but also concern from educational institutions. Looking ahead, having a plan of action and acting decisively and cohesively to contain the health impact and adjust to soften the economic blow has been the hallmark of Mauritius’ response. So far, it has worked.

Bibliography


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\textsuperscript{20} Google. Coronavirus Mauritius. 31 July 2020. (Accessed Aug 01, 2020) \url{https://www.google.com/search?q=cases+of+covid-19+in+mauritius&oq=cases+of+covid-19+in+mauritius+&aqs=chrome.69i57.12828j0j1&sourceid=chrome&ie=UTF-8}.

\textsuperscript{21} Johns Hopkins University of Medicine, Corona Virus Resource Center, Last updated Oct 07, 2020, at 3:00 EDT. \url{https://coronavirus.jhu.edu/data/mortality}.

\textsuperscript{22} Johns Hopkins University. Coronavirus Resource Centre. \url{https://coronavirus.jhu.edu/region/mauritius}. 

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